ABSTRACT

A method and apparatus for improved high-speed adaptive equalization that may operate effectively even in systems experiencing severe interference by using one or more error generators and taking multiple samples across a bit interval. Advantageously, a preferred embodiment of the current invention may be deployed in a clockless configuration. Preferably, one or more controllable analog filters may be controlled by one or more microprocessors used to assess the error data from the error generators and to calculate the appropriate coefficients for the filters according to one or more error minimization algorithms. Preferably, the steps of sampling, assessment, calculation and coefficient setting may be done iteratively to converge to an optimum set of filter values and/or respond dynamically to signals with time-varying noise and interference characteristics.